

What is claimed is:

1. A back light device for a liquid crystal display device, comprising:
a light source providing light;
a light waveguide plate 40 guiding light from the light source, having an emitting surface, a front surface and a bottom surface, the emitting surface adjacent to the light source;
a reflector arranged under the bottom surface of the light wave guide plate, reflecting light; and
at least one cholesteric liquid crystal (CLC) film arranged over the front surface of the light wave guide plate, collimating light.
2. The back light device of claim 1, wherein the CLC film has one-layered structure of a right- or a left handed CLC layer, the right- and left handed CLC layer selectively reflect a right- and a left-handed circularly polarized light, respectively.
3. The back light device of claim 1, wherein the CLC film has a dual-layered structure of a right- and a left handed CLC layer, the right- and left handed CLC layer selectively reflect a right- and a left-handed circularly polarized light, respectively.
4. The back light device of claim 1, further comprises, a prism sheet arranged between the CLC film and the front surface of the light wave guide plate.

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